

International Council of Scientific Unions

INTER-UNION COMMISSION ON FREQUENCY ALLOCATIONS
FOR RADIO ASTRONOMY AND SPACE SCIENCE

Chairman: Dr Brian Robinson

Facsimile: 61 (2) 372 4310

Telephone: 61 (77) 785 046

P.O. Box 256, Milsons Point, NSW, 2061
AUSTRALIA

Telex: AA 26230 ASTRO

FACSIMILE TRANSMISSION:

**TO: PROFESSOR PETER DALY
CAA INSTITUTE OF SATELLITE NAVIGATION
UNIVERSITY OF LEEDS, UK.
FAX: 44 532 332032**

**COPY OF FAX TO DR JIM COHEN, JODRELL BANK, U.K.
and IR H.C. KAHLMANN, Chairman, CRAF,
and DR WILLEM BAAN, ARECIBO OBSVY.**

**FROM: DR BRIAN ROBINSON
DATE: 14 SEPT 1993**

Page 1 of 2.

Dear Peter: Thanks very much for your fax about the changes in GLONASS carrier frequencies, and the change to antipodal satellites transmitting on the same channel.

I believe that these will be long-term changes to the GLONASS system. For I have now received a copy of the Agreement between Russia and Australia signed in Canberra on 6th Sept. Key parts of the Agreement state:

The GLONASS Administration worked out a variety of measures which envisages minimising interference in the band 1610.6-1613.8 MHz at the first stage and eliminating interference at the ~~September this year~~ some work on switching over operating frequencies aimed at the removal of carrier frequencies of these satellites from the Radio Astronomy band 1610.6-1613.8 MHz will be carried out for the satellites which operate in the band now.

The Russian Federation announced plans to completely eliminate interference to Radio Astronomy in the band 1610.6-1613.8 MHz by 1998.

Copies of the Agreement have been sent from Canberra to the ITU, USA, Canada, Brazil, UK, the European Radiocommunications Office (CEPT), and to INMARSAT.

A very similar (but more specific) Agreement was signed last week in Tokyo between Russia and Japan. The main clauses in the Agreement are:

1) As an urgent first step (not later than 1998) the GLONASS system should be restricted to use the lower twelve frequency channels of the present configuration (center frequencies are lower than 1608.1275).

2) As a second step (as early as possible) the twelve frequency channels of the GLONASS system should be shifted down in frequency to channels six and lower (center frequencies are lower than 1604.8125 MHz).

The Russians will be sending delegations to other countries in the next few months. The first delegations were those to Australia and Japan.

Jim Cohen has been observing at 1612 MHz, and reports that the GLONASS carrier frequencies are not present in the RA band. So the Russian undertaking to switch over operating frequencies in September has already begun!

JIM: IT WOULD BE A GOOD IDEA TO LET TYUBALIN KNOW THAT WE HAVE OBSERVED THE SWITCH IN CARRIER FREQUENCIES, AND APPRECIATE THEIR EFFORTS TO CLEAR THE RA BAND.
Brian Robinson.

CERTIFICATE OF SERVICE

I, Philip L. Malet, hereby certify that the foregoing Joint Comments was served by first-class mail, postage prepaid, this 24th day of October, 1993 on the following persons:

- * Chairman James H. Quello
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554
- * Commissioner Andrew C. Barrett
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 10554
- * Commissioner Ervin S. Duggan
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554
- * Thomas P. Stanley
Chief Engineer
Federal Communications Commission
2025 M Street, N.W.
Room 7002
Washington, D.C. 20554
- * Raymond LaForge
Federal Communications Commission
Room 7334
2025 M Street, N.W.
Washington, D.C. 20554
- * Kathleen B. Levitz
Acting Chief, Common Carrier Bureau
Federal Communications Commission
Room 500
1919 M Street, N.W.
Washington, D.C. 20554
- * Gerald P. Vaughan
Deputy Bureau Chief (Operations)
Federal Communications Commission
Room 500
1919 M Street, N.W.
Washington, D.C. 20554

- * Wendell R. Harris
Assistant Bureau Chief
Common Carrier Bureau
Federal Communications Commission
Room 534
1919 M Street, N.W.
Washington, D.C. 20554
- * James R. Keegan
Chief, Domestic Facilities Division
Common Carrier Bureau
Federal Communications Commission
2025 M Street, NW, Room 6010
Washington, DC 20554
- * Thomas Tycz
Deputy Chief
Domestic Facilities Division
Common Carrier Bureau
Federal Communications Commission
Room 6010
2025 M Street, N.W.
Washington, D.C. 20554
- * Cecily C. Holiday
Chief, Satellite Radio Branch
Federal Communications Commission
Room 6324
2025 M Street, N.W.
Washington, D.C. 20554
- * Fern J. Jarmulnek
Satellite Radio Branch
Federal Communications Commission
2025 M Street, NW, Room 6324
Washington, DC 20554
- * James Ball
Associate Director
Office of International Communications
Federal Communications Commission
Room 658
1919 M Street, N.W.
Washington, D.C. 20554

Mr. Richard C. Beaird
Senior Deputy U.S. Coordinator
and Director
Bureau of International Communications
and Information Policy
Room 6313
Department of State
2201 C Street, NW
Washington, D.C. 20520

Mr. Michael Fitch
Deputy U.S. Coordinator and Director
Bureau of International Communications
and Information Policy
Room 6313
Department of State
2201 C Street, NW
Washington, D.C. 20520

Mr. Lawrence Irving
Assistant Secretary for
Communications and Information
NTIA
U.S. Department of Commerce
14th & Constitution Ave., NW
Room 4898
Washington, DC 20230

Ms. Jean Prewitt
Associate Administrator
NTIA/OIA
U.S. Department of Commerce
14th & Constitution Ave., NW
Room 4720
Washington, DC 20230

Mr. Jack A. Gleason
Division Director
NTIA/OIA
U.S. Department of Commerce
14th & Constitution Ave., NW
Room 4701
Washington, DC 20230

Richard D. Parlow
Associate Administrator
Office of Spectrum Management
NTIA
U.S. Department of Commerce
14th & Constitution Ave., NW
Washington, DC 20230

William Hatch
NTIA, Room 4096
U.S. Department of Commerce
14th & Constitution Ave., NW
Washington, DC 20230

Richard Barth
Director
Office of Radio Frequency Management
National Oceanic and
Atmospheric Administration
U.S. Department of Commerce
Room 3332
Federal Office Bldg. #4
Washington, D.C. 20233

Mr. Craig Moll
Telecommunications Policy Specialist
NTIA/OIA
U.S. Department of Commerce
14th & Constitution Ave., NW
Room 4701
Washington, DC 20230

Warren Y. Zeger
General Counsel
COMSAT Corp.
6560 Rock Spring Dr.
Bethesda, MD 20817

Cheryl Lynn Schneider, Esquire
COMSAT Corp.
6560 Rock Spring Dr.
Bethesda, MD 20817

Bruce D. Jacobs, Esquire
Glenn S. Richards, Esquire
Fisher, Wayland, Cooper & Leader
1255 23rd Street, N.W.
Suite 800
Washington, D.C. 20037
(Counsel for AMSC)

Lon C. Levin
Vice President
American Mobile Satellite Corp.
10802 Parkridge Blvd.
Reston, VA 22091

Robert A. Mazer, Esquire
Albert Shuldiner, Esquire
Nixon, Hargrave, Devans & Doyle
One Thomas Circle, NW, Suite 800
Washington, DC 20005
(Counsel for Constellation)

Norman R. Leventhal, Esquire
Raul R. Rodriguez, Esquire
Stephen D. Baruch, Esquire
Leventhal, Senter & Lerman
2000 K Street, N.W.
Suite 600
Washington, D.C. 20006-1809
(Counsel for TRW, Inc.)

Jill Stern, Esquire
Shaw, Pittman, Potts & Trowbridge
2300 N Street, N.W.
Second Floor
Washington, D.C. 20037
(Counsel for Ellipsat)

Gerald Hellman
Vice President, Policy
& International Programs
Mobile Communications Holdings, Inc.
1120 19th Street, N.W.
Washington, D.C. 20036

Victor J. Toth, P.C.
Law Offices
2719 Soapstone Drive
Reston, VA 22091
(Counsel for Celsat, Inc.)

Dr. Robert L. Riemer
Committee on Radio Frequencies
HA-562
National Research Council
2101 Constitution Ave., N.W.
Washington, D.C. 20418

Richard G. Gould
Telecommunications Systems
1629 K Street, N.W.
Suite 600
Washington, D.C. 20006

John L. Bartlett
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006
(Counsel for ARINC/ATA)

Gary M. Epstein
James F. Rogers
Kevin C. Boyle
Latham & Watkins
1001 Pennsylvania Avenue, N.W.
Suite 1300
Washington, D.C. 20004
(Counsel for Hughes Aircraft)

Edward R. Adelson
Vice President
Industry Activities
Aeronautical Radio, Inc.
2551 Riva Road
Annapolis, MD 21401-7465

Abdul Tahir
Director, GPS Deveoplment
Litton Systems, Inc.
6101 Condor Drive
Moorpark, CA 93021

Linda C. Sadler
Manager, Government Affairs
Rockwell International Corp.
1745 Jefferson Davis Highway
Arlington, VA 22202

Guy M. Gooch
Director, Systems Engineering
Mobile Communications Satellite Systems
Rockwell International Corp.
400 Collins Road, NE
Cedar Rapids, IA 52498

Paul J. Sinderbrand, Esquire
Dawn G. Alexander, Esquire
Sinderbrand & Alexander
888 16th Street, N.W.
Suite 610
Washington, DC 20006-4103
(Counsel for Wireless Cable
Association International, Inc.)

Robert A. Frazier
Spectrum Engineering & Planning
Division - ASM-500
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D.C. 20591

B. E. Morriss
Deputy Manager
National Communications System
Washington, D.C. 20305-2010

R. A. Davis
Vice President, Engineering
Boeing Commercial Airplane Group
P.O. Box 3703, MS GR-UT
Seattle, WA 98124-2207

David Struba
NASA Headquarters
Code OI
Washington, D.C. 20546

William K. Keane, Esq.
Winston & Strawn
1400 L Street, N.W.
Washington, D.C. 20005
(Counsel for AFTRCC)

Jeffrey L. Sheldon
General Counsel
Utilities Telecommunications Council
1140 Connecticut Ave., N.W., Suite 1140
Washington, D.C. 20036

Arun Bhumitra
Vice President
ARJAY Telecommunications
20669 Hawthorne Blvd.
Torrance, CA 90503

M. Worstell
Vice President, Contracts
Litton Aero Products
6101 Condor Drive
Moorpark, CA 93021

J. Ellis McSparran
3S Navigation
23141 Plaza Pointe Drive
Laguna Hills, CA 92653

Thomas Trimmer
U.S. Army
Hoffman II
Room 9S65
200 Stovall Street
Alexandria, VA 22332

E. William Henry
Henry M. Rivera
Ginsburg, Feldman and Bress
Chartered
1250 Connecticut Ave., N.W.
Washington, D.C. 20036
(Counsel for RDSS Inc.)

Bruce L. Bucklin
Acting Chief
Technical Operations Section
Drug Enforcement Administration
U.S. Department of Justice
Washington, D.C. 20537

Terri B. Natoli
Regulatory and Industry
Relations Manager
GTE Spacenet
1700 Old Meadow Road
McLean, VA 22102

Tedson J. Myers
Reid & Priest
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
(Counsel for AfriSpace, Inc.)


Philip L. Malet

* Delivery by hand.